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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,354	07/20/2001	Kevin A. Jarrell	2003320-0032	2372

7590 05/19/2005

Brenda Herschbach Jarrell,Choates, Hall & Stewart
Exchange Place
53 State Street
Boston, MA 02109

EXAMINER	
VOGEL, NANCY S	

ART UNIT	PAPER NUMBER
1636	

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/910,354	JARRELL ET AL.	
	Examiner	Art Unit	
	Nancy T. Vogel	1636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 February 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 12-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5 and 12-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 July 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/05 2/05, 9/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: *Sequence Error Report*.

DETAILED ACTION

Receipt of Information Disclosure Statements on 3/31/05, 2/7/05 and 9/27/04, as well as a paper copy and a computer readable form of the Sequence Listing, on 2/28/05, is acknowledged.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on has been entered.

Sequence compliance

This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 C.F.R. § 1.821(a)(1) and (a)(2). However, this application fails to comply with the requirements of 37 C.F.R. §§ 1.821-1.825 for the reason(s) set forth on the attached Raw Sequence Listing Error Report.

Direct the response to the undersigned. Applicant is requested to return a copy of the attached Notice to Comply with the response.

Information Disclosure Statement

Applicants have submitted and Information Disclosure Statement on 9/27/04, which is a copy of a Statement originally submitted 2/14/03, and request the examiner to initial and sign said Statement.

However, the examiner previously considered this Information Disclosure Statement, and sent the initialed and signed Information Disclosure Statement with the Office action mailed 11/20/03. Therefore, the references present on the copy of the Information Disclosure Statement submitted 9/27/04, being returned with this Office action, have been struck through to avoid duplication.

Drawings

New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the drawings are hand drawn and unclear. Applicant is advised to employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 2, 4, 5, 12, 14-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Harney et al. (US Patent US Patent 6,495,318) (previously cited).

This rejection is maintained essentially for the reasons made of record in the previous Office action, mailed 8/25/04, modified to account for amendments to the claims and the addition of new claims submitted by applicants in the amendment on 2/25/05. Applicant's arguments of 2/25/05 have been considered, but have not been found convincing.

Harney disclose a method of preparing a vector, comprising providing at least two collections of nucleic acid molecules, wherein each of the collections comprises alternative vector fragments to be included in the vector, wherein vector fragments within the first collection each comprise at least a first portion of a first vector element

and a first portion of a second vector element (a half of a restriction site, containing a single stranded overhang) which first portion of the second vector element cannot alone provide a second vector element function; and vector fragments within the second collection each comprise a second portion of the second vector element (a half of a restriction site, containing a single stranded overhang), which second portion of the second vector element also cannot alone provide the second vector element function, the first and second portions of the second vector element being selected and the vector fragments being designed such that when a vector fragment from the first collection is ligated with a vector fragment from the second collection the second vector element function is reconstituted, and mixing at least one vector fragment from each collection with one another under linkage conditions so that a hybrid molecule in which each of the fragments is linked together is produced. See Figure Fig. 1 and col. 1, lines 58-col. 2, line 15). The reference discloses that the selected nucleic acid molecules contain at least one overhang that is complementary with an overhang on at least one of the other selected molecules (col. 2, lines 33-41). The reference discloses the further introduction of the hybrid molecule (ie vector) into a cell (see col. 56, lines 18-23). The reference discloses that each nucleic molecule in each of said collections contains at least a portion of a vector element such as a promoter, selectable marker, replication origin, transcription terminator, etc. (Fig. 1 and column 7, lines 11-26). The reference discloses admixing under ligase conditions (see col. 17, lines 61-65). The vector fragments contain selectable or detectable genetic units (see Fig. 1). The reference discloses said method wherein the step of admixing further comprises admixing an

isolated nucleic acid molecule containing insert sequence (ie the gene of interest in Fig. 1). The first vector element provides a first vector element function, such as a promoter (Fig. 1). The first vector element may also be considered to be the half restriction enzyme site present at the left of the fragments shown in Fig. 1, and thus they alone cannot provide a first vector element function i.e. a complete restriction site. The first portion of the first vector element may alternatively be considered the promoter present on the first element shown in Fig. 1. It is noted that the specification defines a vector "element" as "a region of nucleic acid sequence that imparts a particular functional or structural characteristic upon the molecule" (page 8 of the specification). A restriction enzyme recognition site meets this definition, since it imparts a functional and structural characteristic upon the vector.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5, 12-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harney in view of Jarell (US Patent 5,498,531, "Jarrell '531") or Jarrell (US Patent 5,780,272 "Jarrell '272").

This rejection is maintained essentially for the reasons made of record in the previous Office action, mailed 8/25/04, modified to account for amendments to the

claims and the addition of new claims submitted by applicants in the amendment on 2/25/05. Applicant's arguments of 2/25/05 have been considered, but have not been found convincing.

Harney is cited essentially for the reasons set forth above.

The difference between the references and the instant application is that the nucleic acid molecules each contain at least one intronic element that is characterized by an ability to trans-splice with a compatible intronic element on at least one of the other molecules.

However, by applicants' admission at page 23, lines 9-18 of the instant specification, Jarrell '531 and Jarrell '272 teach methods of preparing vectors comprising providing at least two nucleic acid molecules that contain intronic elements having an ability to trans-splice with each other.

It would have been obvious for one of ordinary skill in the art to have modified the method of preparing a vector, comprising providing at least two collections of nucleic acids wherein each of said collections comprises at least two isolated nucleic acids and wherein each of said isolated nucleic acids comprises a portion of vector sequence; selecting an individual nucleic acid molecule, or portion of a nucleic acid molecule from each of said collections; and admixing the selection nucleic molecules with one another under linkage conditions so that a hybrid molecule in which each of the selected nucleic acid molecules or portions is linked together is produced, as disclosed by Harney, by adding intronic elements to at least two of the nucleic acids, such that trans-splicing can take place between them, as taught by Jarrell '531 and Jarrell '272, in order to efficiently

manipulate nucleic acids by specific cleavage and ligation (see column 2, line 33-column 3, line 40 of Jarrell '531, and col. 2, line 39 – col. 3, line 45 of Jerrell '272). One would have been motivated to do so in order to obtain the benefits of ease of manipulation of said nucleic acids, including joining said nucleic acids and eliminating non-essential regions, as taught by Jarrell '531 and Jarrell '272. Based upon the teachings of the cited references, the high skill of one of ordinary skill in the art, and absent evidence to the contrary, there would have been a reasonable expectation of success to result in the claimed invention.

Applicants have argued that it would not have been obvious to have combined the teachings of Harney and Jarrell, since there is no "suggestion or motivation in the prior art or elsewhere to combine the two methods" (page 8). However, it is maintained that Jarrell teach the general method of preparing any vector of interest, in which at least two nucleic acid molecules are provided that contain intronic elements having the ability to trans-splice with each other. One of ordinary skill in the art would have recognized that the vector fragments of Harney could have been modified to take advantage of the ability of intronic elements to trans-splice with each other as taught by Jarrell '531 and '272, since Jarrell contains teachings which are applicable to any vector fragments desired to be joined. Based upon the teachings of the cited references, the high skill of one of ordinary skill in the art, and absent evidence to the contrary, there would have been a reasonable expectation of success to result in the claimed invention. Furthermore, applicant again argues that the reference does not teach the method of the claims in their present form, "wherein each vector fragment in each of the

collections contains a portion of a vector element which cannot alone provide a function, but which function is reconstituted when a vector fragment from each collection is ligated together" (page 9). However, for the reasons set forth in the above rejection, it is maintained that Harney does teach such reconstitution of a function of a vector element, and therefore applicant's arguments are not found convincing.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nancy T. Vogel whose telephone number is (571) 272-0780. The examiner can normally be reached on 7:00 - 3:30, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Irem Yucel, Ph.D. can be reached on (571) 272-0781. The fax phone number for the organization where this application or proceeding is assigned is 572-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NANCY VOGEL, PH.D.
PATENT EXAMINER

STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/910,354A
Source: FTW16
Date Processed by STIC: 3-4-05

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.2.2 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.
Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.
Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm> , **EFS Submission User Manual** - ePAVE)
2. **U.S. Postal Service:** Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. **Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):** U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/24/05

Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION

SERIAL NUMBER: 09/910,354A

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1 ____ Wrapped Nucleics / Wrapped Aminos — The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .); this will prevent "wrapping."

2 ____ Invalid Line Length — The rules require that a line not exceed 72 characters in length. This includes white spaces.

3 ____ Misaligned Amino Numbering — The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.

4 ____ Non-ASCII — The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.

5 ____ Variable Length — Sequence(s) ____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing

6 ____ PatentIn 2.0 "bug" — A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequence(s) ____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.

7 ____ Skipped Sequences (OLD RULES) — Sequence(s) ____ missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO X (insert SEQ ID NO where "X" is shown)
(i) SEQUENCE CHARACTERISTICS (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION SEQ ID NO X (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(n) NUMBER OF SEQUENCES" response to include the skipped sequences.

8 Skipped Sequences (NEW RULES) — Sequence(s) ____ missing. If intentional, please insert the following lines for each skipped sequence:
<210> sequence id number
<400> sequence id number
000

9 Use of n's or Xaa's (NEW RULES) — Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.821 of Sequence Rules, use of <220> - <223> is MANDATORY if n's or Xaa's are present in <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

10 ____ Invalid <213> Response — Per 1.821 of Sequence Rules, the only valid <213> responses are Unknown, Artificial Sequence or scientific name (Genus/species). <220> - <223> section is required when <213> response is Unknown or is Artificial Sequence

11 ____ Use of <220> — Sequence(s) ____ missing the <220> 'Feature' and associated numeric identifiers and responses.
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol 63, No. 104, pp. 29631-32) (Sec. 1.821 of Sequence Rules)

12 ____ PatentIn 2.0 "bug" — Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

13 ____ Misuse of n/Xaa — "n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid

IFW16

RAW SEQUENCE LISTING DATE: 03/04/2005
PATENT APPLICATION: US/09/910,354A TIME: 14:13:10

Input Set : A:\pto.da.txt
Output Set: N:\CRF4\03032005\I910354A.raw

see item # 10 on error summary sheet (pg. 1-4)

Does Not Comply
Corrected Diskette Needed

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     3 <110> APPLICANT: Jarrell, et al.,
W--> 4 <120> TITLE OF INVENTION: Modular Vector Systems
     6 <130> FILE REFERENCE: 2003320-0032
     8 <140> CURRENT APPLICATION NUMBER: 09/910,354A
     9 <141> CURRENT FILING DATE: 2001-07-20
    11 <160> NUMBER OF SEQ ID NOS: 24
    13 <170> SOFTWARE: PatentIn version 3.2
    15 <210> SEQ ID NO: 1
    16 <211> LENGTH: 23
    17 <212> TYPE: DNA
    18 <213> ORGANISM: PCR primer EU-1 for amplification of a vector fragment containing
W--> 19 bacterical origin of replication, Lac I gene, and pT7 promoter.
    21 <400> SEQUENCE: 1
    22 cauggtatat ctccttctta aag                                                    23
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    28 <213> ORGANISM: PCR primer Eu-2 for amplification of a vector fragment containing
W--> 29 bacterial origin of replication, Lac I gene, and pT7 promoter.
    31 <400> SEQUENCE: 2
    32 cucatgacca aaatcccttа ac                                                     22
    35 <210> SEQ ID NO: 3
    36 <211> LENGTH: 22
    37 <212> TYPE: DNA
    38 <213> ORGANISM: PCR primer EU-3 for amplification of a vector fragment containing Amp
W--> 39 gene.
    41 <400> SEQUENCE: 3
    42 gagattatca aaaaggatct tc                                                     22
    45 <210> SEQ ID NO: 4
    46 <211> LENGTH: 20
    47 <212> TYPE: DNA
    48 <213> ORGANISM: PCR primer EU-4 for amplification of a vector fragment containing Amp
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    51 <400> SEQUENCE: 4
    52 uaactagcat aacccttgg                                                         20
    55 <210> SEQ ID NO: 5
    56 <211> LENGTH: 21
    57 <212> TYPE: DNA
    58 <213> ORGANISM: PCR primer 5' Lac Z for amplification of an insert fragment containing
W--> 59 Lac Z gene.
    61 <400> SEQUENCE: 5
    62 augaccatga ttacgccaac g                                                      21
    65 <210> SEQ ID NO: 6
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Invalid response

Invalid response

Invalid response

Invalid response

FYI: The above responses can be inserted into section (2207-2223).

RAW SEQUENCE LISTING DATE: 03/04/2005
PATENT APPLICATION: US/09/910,354A TIME: 14:13:10

Input Set : A:\pto.da.txt
Output Set: N:\CRF4\03032005\I910354A.raw

CSAMP errors

66 <211> LENGTH: 22
67 <212> TYPE: DNA
68 <213> ORGANISM: PCR primer 3' Lac Z for amplification of an insert fragment containing
W--> 69 Lac Z gene.
71 <400> SEQUENCE: 6
72 uuacaatttc cattcgccat tc 22
75 <210> SEQ ID NO: 7
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77 <212> TYPE: DNA
78 <213> ORGANISM: PCR primer 5' OST for amplifying an Ori fragment from pET 19 b.
80 <400> SEQUENCE: 7
81 ctgctaagtg agcucgacag atcgctgaga taggtgc 37
84 <210> SEQ ID NO: 8
85 <211> LENGTH: 36
86 <212> TYPE: DNA
87 <213> ORGANISM: PCR primer 1N 3' Ori(s) for amplifying an Ori fragment from pET 19b.
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96 <213> ORGANISM: PCR primer 1NT5'KAN for amplifying a fragment containing the kanamycin
W--> 97 resistance gene from pCR2.1 topo.
99 <400> SEQUENCE: 9
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103 <210> SEQ ID NO: 10
104 <211> LENGTH: 41
105 <212> TYPE: DNA
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W--> 107 resistance gene from pCR2.1 topo.
109 <400> SEQUENCE: 10
110 ccctatagtg agtcgtatta aggcgaaaac tctcaaggat c 41
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114 <211> LENGTH: 42
115 <212> TYPE: DNA
116 <213> ORGANISM: PCR primer tcs1 for amplifying a fragment containing the luciferase
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W--> 117 from pGl II basic.
119 <400> SEQUENCE: 11
120 ttaatacgac tcactatagg gatggaagac gccaaaaaca ta 42
123 <210> SEQ ID NO: 12
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125 <212> TYPE: DNA
126 <213> ORGANISM: PCR primer tc58 for amplifying a fragment containing the luciferase
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130 gagctcactt agcagttaca atttggactt tccgcc 36
133 <210> SEQ ID NO: 13
134 <211> LENGTH: 36
135 <212> TYPE: DNA

↑ see item # 10 on error summary sheet

RAW SEQUENCE LISTING DATE: 03/04/2005
PATENT APPLICATION: US/09/910,354A TIME: 14:13:10

Input Set : A:\pto.da.txt
Output Set: ~~N:\CRF4\03032005\I910354A.raw~~

136 <213> ORGANISM: PCR primer 1NT 5'KAN for amplifying a fragment containing the kanamycin
W--> 137 resistance gene from pCR 2.1 topo.
139 <400> SEQUENCE: 13
140 ctacctagca agctuctatc tggacaaggg aaaacg 36
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144 <211> LENGTH: 33
145 <212> TYPE: DNA
146 <213> ORGANISM: PCR primer 1NT 3'KAN for amplifying a fragment containing the kanamycin
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149 <400> SEQUENCE: 14
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153 <210> SEQ ID NO: 15
154 <211> LENGTH: 37
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156 <213> ORGANISM: PCR primer 1NT5' Ori for amplifying a fragment containing the Ori from
W--> 157 pET 19b.
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165 <212> TYPE: DNA
166 <213> ORGANISM: PCR primer 1N3'Ori(s) for amplifying a fragment containing the Ori from
W--> 167 pET 19b
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174 <211> LENGTH: 37
175 <212> TYPE: DNA
176 <213> ORGANISM: PCR primer 3nt 5'OST for amplifying an Ori fragment.
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179 ctgctaagtg agcucgacag atcgctgaga taggtgc 37
182 <210> SEQ ID NO: 18
183 <211> LENGTH: 36
184 <212> TYPE: DNA
185 <213> ORGANISM: PCR primer 3nt 5'OST for amplfiying an Ori fragment.
187 <400> SEQUENCE: 18
188 aagcttgcta gguaggctac gtcttgctgg cgttcg 36
191 <210> SEQ ID NO: 19
192 <211> LENGTH: 36
193 <212> TYPE: DNA
194 <213> ORGANISM: PCR primer 3nt 5'KHT for amplifiying a KAN fragment.
196 <400> SEQUENCE: 19
197 ctacctagca agcuuctatc tggacaaggg aaaacg 36
200 <210> SEQ ID NO: 20
201 <211> LENGTH: 35
202 <212> TYPE: DNA
203 <213> ORGANISM: PCR primer 3nt 3'KST for amplifying an Ori(s) fragment.
205 <400> SEQUENCE: 20
206 gagctcactt agcagggcga aaactctcaa ggatc 35

ASAMP errors

↑ see item #10 on error summary sheet.

RAW SEQUENCE LISTING DATE: 03/04/2005
PATENT APPLICATION: US/09/910,354A TIME: 14:13:10

Input Set : A:\pto.da.txt
Output Set: N:\CRF4\03032005\I910354A.raw

same errors

209 <210> SEQ ID NO: 21
210 <211> LENGTH: 37
211 <212> TYPE: DNA
212 <213> ORGANISM: PCR primer 1NT 5'ORI for amplifying an Ori(s) fragment.
214 <400> SEQUENCE: 21
215 ttgctaagtg agctcgacag atcgctgaga taggtgc 37
218 <210> SEQ ID NO: 22
219 <211> LENGTH: 36
220 <212> TYPE: DNA
221 <213> ORGANISM: PCR primer 1NT3' Ori(s) for amplifying an Ori(s) fragment.
223 <400> SEQUENCE: 22
224 aagcttgcta ggtagggcgt ttttccatag gctccg 36
227 <210> SEQ ID NO: 23
228 <211> LENGTH: 36
229 <212> TYPE: DNA
230 <213> ORGANISM: PCR primer 1NT 5'KAN for amplifying an KAN fragment.
232 <400> SEQUENCE: 23
233 ctacctagca agctuctatc tggacaaggg aaaacg 36
236 <210> SEQ ID NO: 24
237 <211> LENGTH: 33
238 <212> TYPE: DNA
239 <213> ORGANISM: PCR primer 1NT3'KAN for amplifying an Ori(s).
241 <400> SEQUENCE: 24
242 gagctcactt agcaaggcga aaactctcaa gga 33

see item #10 on error summary sheet

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 03/04/2005
PATENT APPLICATION: US/09/910,354A TIME: 14:13:11

Input Set : A:\pto.da.txt
Output Set: N:\CRF4\03032005\I910354A.raw

Invalid Line Length:
The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:11; Line(s) 116
Seq#:12; Line(s) 126

VERIFICATION SUMMARY DATE: 03/04/2005
PATENT APPLICATION: US/09/910,354A TIME: 14:13:11

Input Set : A:\pto.da.txt
Output Set: N:\CRF4\03032005\I910354A.raw

L:4 M:283 W: Missing Blank Line separator, <120> field identifier
L:19 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:29 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:39 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:49 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:59 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:69 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:97 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:107 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:117 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:127 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:137 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:147 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:157 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:167 M:259 W: Allowed number of lines exceeded, <213> ORGANISM: